

=====

Sequence Listing was accepted.

If you need help call the Patent Electronic Business Center at (866)
217-9197 (toll free).

Reviewer: Anne Corrigan

Timestamp: [year=2010; month=12; day=28; hr=9; min=22; sec=10; ms=550;]

=====

Application No: 10567386 Version No: 2.0

Input Set:

Output Set:

Started: 2010-12-14 13:21:43.821
Finished: 2010-12-14 13:21:48.574
Elapsed: 0 hr(s) 0 min(s) 4 sec(s) 753 ms
Total Warnings: 4
Total Errors: 0
No. of SeqIDs Defined: 152
Actual SeqID Count: 152

Error code	Error Description
W 213	Artificial or Unknown found in <213> in SEQ ID (149)
W 213	Artificial or Unknown found in <213> in SEQ ID (150)
W 213	Artificial or Unknown found in <213> in SEQ ID (151)
W 213	Artificial or Unknown found in <213> in SEQ ID (152)

SEQUENCE LISTING

<110> BERNTENIS, NIKOLAOS
 BUURMAN, GERRIT
 KROPSHOFER, HARALD
 MUELLER, BERND
 SPINDELDREHER, SEBASTIAN
 VOGT, ANNE
 ZOLG, WERNER

<120> RA ANTIGENIC PEPTIDES

<130> 21796

<140> 10567386

<141> 2010-12-14

<150> PCT/EP2004/008609

<151> 2004-07-30

<150> EP 03017551.7

<151> 2003-08-07

<160> 152

<170> PatentIn version 3.5

<210> 1

<211> 14

<212> PRT

<213> Homo sapiens

<400> 1

Gly Asp Arg Gly Met Gln Leu Met His Ala Asn Ala Gln Arg

1 5 10

<210> 2

<211> 17

<212> PRT

<213> Homo sapiens

<400> 2

Gly Asp Arg Gly Met Gln Leu Met His Ala Asn Ala Gln Arg Thr Asp

1 5 10 15

Ala

<210> 3

<211> 16

<212> PRT

<213> Homo sapiens

<400> 3

Gly Asp Arg Gly Met Gln Leu Met His Ala Asn Ala Gln Arg Thr Asp
1 5 10 15

<210> 4

<211> 16

<212> PRT

<213> Homo sapiens

<400> 4

Ile Asn Asn Gln Leu Thr Leu Asp Ser Asn Thr Lys Tyr Phe His Lys
1 5 10 15

<210> 5

<211> 17

<212> PRT

<213> Homo sapiens

<400> 5

Ile Asn Asn Gln Leu Thr Leu Asp Ser Asn Thr Lys Tyr Phe His Lys
1 5 10 15

Leu

<210> 6

<211> 19

<212> PRT

<213> Homo sapiens

<400> 6

Met Pro Lys Asn Val Val Phe Val Ile Asp Lys Ser Gly Ser Met Ser
1 5 10 15

Gly Arg Lys

<210> 7

<211> 18

<212> PRT

<213> Homo sapiens

<400> 7

Met Pro Lys Asn Val Val Phe Val Ile Asp Lys Ser Gly Ser Met Ser
1 5 10 15

Gly Arg

<210> 8
<211> 17
<212> PRT
<213> Homo sapiens

<400> 8
Met Pro Lys Asn Val Val Phe Val Ile Asp Lys Ser Gly Ser Met Ser
1 5 10 15

Gly

<210> 9
<211> 14
<212> PRT
<213> Homo sapiens

<400> 9
Asn Val Val Phe Val Ile Asp Lys Ser Gly Ser Met Ser Gly
1 5 10

<210> 10
<211> 15
<212> PRT
<213> Homo sapiens

<400> 10
Lys Asn Val Val Phe Val Ile Asp Lys Ser Gly Ser Met Ser Gly
1 5 10 15

<210> 11
<211> 15
<212> PRT
<213> Homo sapiens

<400> 11
Asn Val Val Phe Val Ile Asp Lys Ser Gly Ser Met Ser Gly Arg
1 5 10 15

<210> 12
<211> 16
<212> PRT
<213> Homo sapiens

<400> 12
Asn Val Val Phe Val Ile Asp Lys Ser Gly Ser Met Ser Gly Arg Lys
1 5 10 15

<210> 13
<211> 15
<212> PRT

<213> Homo sapiens

<400> 13

Gly His Pro Gln Tyr Leu Leu Asp Ser Asn Ser Trp Ile Glu Glu
1 5 10 15

<210> 14

<211> 16

<212> PRT

<213> Homo sapiens

<400> 14

Gly His Pro Gln Tyr Leu Leu Asp Ser Asn Ser Trp Ile Glu Glu Met
1 5 10 15

<210> 15

<211> 14

<212> PRT

<213> Homo sapiens

<400> 15

Gly His Pro Gln Tyr Leu Leu Asp Ser Asn Ser Trp Ile Glu
1 5 10

<210> 16

<211> 18

<212> PRT

<213> Homo sapiens

<400> 16

Gly His Pro Gln Tyr Leu Leu Asp Ser Asn Ser Trp Ile Glu Glu Met
1 5 10 15

Pro Ser

<210> 17

<211> 13

<212> PRT

<213> Homo sapiens

<400> 17

His Pro Gln Tyr Leu Leu Asp Ser Asn Ser Trp Ile Glu
1 5 10

<210> 18

<211> 12

<212> PRT

<213> Homo sapiens

<400> 18

Gly His Pro Gln Tyr Leu Leu Asp Ser Asn Ser Trp
1 5 10

<210> 19

<211> 19

<212> PRT

<213> Homo sapiens

<400> 19

Gly Val Asp Arg Tyr Ile Ser Lys Tyr Glu Leu Asp Lys Ala Phe Ser
1 5 10 15

Asp Arg Asn

<210> 20

<211> 15

<212> PRT

<213> Homo sapiens

<400> 20

Arg Tyr Ile Ser Lys Tyr Glu Leu Asp Lys Ala Phe Ser Asp Arg
1 5 10 15

<210> 21

<211> 14

<212> PRT

<213> Homo sapiens

<400> 21

Ile Ser Lys Tyr Glu Leu Asp Lys Ala Phe Ser Asp Arg Asn
1 5 10

<210> 22

<211> 15

<212> PRT

<213> Homo sapiens

<400> 22

Ile Ser Lys Tyr Glu Leu Asp Lys Ala Phe Ser Asp Arg Asn Thr
1 5 10 15

<210> 23

<211> 13

<212> PRT

<213> Homo sapiens

<400> 23

Ile Ser Lys Tyr Glu Leu Asp Lys Ala Phe Ser Asp Arg
1 5 10

<210> 24
<211> 16
<212> PRT
<213> Homo sapiens

<400> 24
Gly Ser Arg Glu Ile Lys Ser Gln Gln Ser Glu Val Thr Arg Ile Leu
1 5 10 15

<210> 25
<211> 12
<212> PRT
<213> Homo sapiens

<400> 25
Arg Glu Ile Lys Ser Gln Gln Ser Glu Val Thr Arg
1 5 10

<210> 26
<211> 14
<212> PRT
<213> Homo sapiens

<400> 26
Gly Ser Arg Glu Ile Lys Ser Gln Gln Ser Glu Val Thr Arg
1 5 10

<210> 27
<211> 14
<212> PRT
<213> Homo sapiens

<400> 27
Arg Glu Ile Lys Ser Gln Gln Ser Glu Val Thr Arg Ile Leu
1 5 10

<210> 28
<211> 17
<212> PRT
<213> Homo sapiens

<400> 28
Gly Pro His Asp Val His Val Gln Ile Glu Thr Ser Pro Pro Ala Arg
1 5 10 15

Asn

<210> 29
<211> 19

<212> PRT

<213> Homo sapiens

<400> 29

Gly Pro His Asp Val His Val Gln Ile Glu Thr Ser Pro Pro Ala Arg
1 5 10 15

Asn Leu Lys

<210> 30

<211> 16

<212> PRT

<213> Homo sapiens

<400> 30

Gly Pro His Asp Val His Val Gln Ile Glu Thr Ser Pro Pro Ala Arg
1 5 10 15

<210> 31

<211> 18

<212> PRT

<213> Homo sapiens

<400> 31

Thr Pro His Gly Ile Ile Leu Asp Ser Val Asp Ala Ala Phe Ile Cys
1 5 10 15

Pro Gly

<210> 32

<211> 17

<212> PRT

<213> Homo sapiens

<400> 32

Thr Pro His Gly Ile Ile Leu Asp Ser Val Asp Ala Ala Phe Ile Cys
1 5 10 15

Pro

<210> 33

<211> 13

<212> PRT

<213> Homo sapiens

<400> 33

Thr Pro His Gly Ile Ile Leu Asp Ser Val Asp Ala Ala

1 5 10

<210> 34

<211> 14

<212> PRT

<213> Homo sapiens

<400> 34

Gly Thr Pro His Gly Ile Ile Leu Asp Ser Val Asp Ala Ala

1 5 10

<210> 35

<211> 15

<212> PRT

<213> Homo sapiens

<400> 35

Thr Pro His Gly Ile Ile Leu Asp Ser Val Asp Ala Ala Phe Ile

1 5 10 15

<210> 36

<211> 18

<212> PRT

<213> Homo sapiens

<400> 36

Ile Asp Lys Glu Gly Val Ile Glu Pro Asp Thr Asp Ala Pro Gln Glu

1 5 10 15

Met Gly

<210> 37

<211> 15

<212> PRT

<213> Homo sapiens

<400> 37

Lys Glu Gly Val Ile Glu Pro Asp Thr Asp Ala Pro Gln Glu Met

1 5 10 15

<210> 38

<211> 16

<212> PRT

<213> Homo sapiens

<400> 38

Ile Asp Lys Glu Gly Val Ile Glu Pro Asp Thr Asp Ala Pro Gln Glu

1 5 10 15

<210> 39
<211> 15
<212> PRT
<213> Homo sapiens

<400> 39
Asp Lys Glu Gly Val Ile Glu Pro Asp Thr Asp Ala Pro Gln Glu
1 5 10 15

<210> 40
<211> 261
<212> PRT
<213> Homo sapiens

<300>
<308> Swiss-Prot/P13284
<309> 1990-01-01
<313> (1)..(261)

<400> 40
Met Asp Ser Arg His Thr Phe Ala Pro Ala Ala Met Thr Leu Ser Pro
1 5 10 15

Leu Leu Leu Phe Leu Pro Pro Leu Leu Leu Leu Asp Val Pro Thr
20 25 30

Ala Ala Val Gln Ala Ser Pro Leu Gln Ala Leu Asp Phe Phe Gly Asn
35 40 45

Gly Pro Pro Val Asn Tyr Lys Thr Gly Asn Leu Tyr Leu Arg Gly Pro
50 55 60

Leu Lys Lys Ser Asn Ala Pro Leu Val Asn Val Thr Leu Tyr Tyr Glu
65 70 75 80

Ala Leu Cys Gly Gly Cys Arg Ala Phe Leu Ile Arg Glu Leu Phe Pro
85 90 95

Thr Trp Leu Leu Val Met Glu Ile Leu Asn Val Thr Leu Val Pro Tyr
100 105 110

Gly Asn Ala Gln Glu Gln Asn Val Ser Gly Arg Trp Glu Phe Lys Cys
115 120 125

Gln His Gly Glu Glu Glu Cys Lys Phe Asn Lys Val Glu Ala Cys Val
130 135 140

Leu Asp Glu Leu Asp Met Glu Leu Ala Phe Leu Thr Ile Val Cys Met
145 150 155 160

Glu Glu Phe Glu Asp Met Glu Arg Ser Leu Pro Leu Cys Leu Gln Leu
165 170 175

Tyr Ala Pro Gly Leu Ser Pro Asp Thr Ile Met Glu Cys Ala Met Gly
180 185 190

Asp Arg Gly Met Gln Leu Met His Ala Asn Ala Gln Arg Thr Asp Ala
195 200 205

Leu Gln Pro Pro His Glu Tyr Val Pro Trp Val Thr Val Asn Gly Lys
210 215 220

Pro Leu Glu Asp Gln Thr Gln Leu Leu Thr Leu Val Cys Gln Leu Tyr
225 230 235 240

Gln Gly Lys Lys Pro Asp Val Cys Pro Ser Ser Thr Ser Ser Leu Arg
245 250 255

Ser Val Cys Phe Lys
260

<210> 41
<211> 4563
<212> PRT
<213> Homo sapiens

<300>
<308> Swiss-Prot/P04114
<309> 1986-11-01
<313> (1)..(4563)

<400> 41
Met Asp Pro Pro Arg Pro Ala Leu Leu Ala Leu Leu Ala Leu Pro Ala
1 5 10 15

Leu Leu Leu Leu Leu Leu Ala Gly Ala Arg Ala Glu Glu Glu Met Leu
20 25 30

Glu Asn Val Ser Leu Val Cys Pro Lys Asp Ala Thr Arg Phe Lys His
35 40 45

Leu Arg Lys Tyr Thr Tyr Asn Tyr Glu Ala Glu Ser Ser Ser Gly Val
50 55 60

Pro Gly Thr Ala Asp Ser Arg Ser Ala Thr Arg Ile Asn Cys Lys Val
65 70 75 80

Glu Leu Glu Val Pro Gln Leu Cys Ser Phe Ile Leu Lys Thr Ser Gln
85 90 95

Cys Thr Leu Lys Glu Val Tyr Gly Phe Asn Pro Glu Gly Lys Ala Leu
100 105 110

Leu Lys Lys Thr Lys Asn Ser Glu Glu Phe Ala Ala Ala Met Ser Arg
115 120 125

Tyr Glu Leu Lys Leu Ala Ile Pro Glu Gly Lys Gln Val Phe Leu Tyr
130 135 140

Pro Glu Lys Asp Glu Pro Thr Tyr Ile Leu Asn Ile Lys Arg Gly Ile
145 150 155 160

Ile Ser Ala Leu Leu Val Pro Pro Glu Thr Glu Glu Ala Lys Gln Val
165 170 175

Leu Phe Leu Asp Thr Val Tyr Gly Asn Cys Ser Thr His Phe Thr Val
180 185 190

Lys Thr Arg Lys Gly Asn Val Ala Thr Glu Ile Ser Thr Glu Arg Asp
195 200 205

Leu Gly Gln Cys Asp Arg Phe Lys Pro Ile Arg Thr Gly Ile Ser Pro
210 215 220

Leu Ala Leu Ile Lys Gly Met Thr Arg Pro Leu Ser Thr Leu Ile Ser
225 230 235 240

Ser Ser Gln Ser Cys Gln Tyr Thr Leu Asp Ala Lys Arg Lys His Val
245 250 255

Ala Glu Ala Ile Cys Lys Glu Gln His Leu Phe Leu Pro Phe Ser Tyr
260 265 270

Asn Asn Lys Tyr Gly Met Val Ala Gln Val Thr Gln Thr Leu Lys Leu
275 280 285

Glu	Asp	Thr	Pro	Lys	Ile	Asn	Ser	Arg	Phe	Phe	Gly	Glu	Gly	Thr	Lys	290	295	300
Lys	Met	Gly	Leu	Ala	Phe	Glu	Ser	Thr	Lys	Ser	Thr	Ser	Pro	Pro	Lys	305	310	315 320
Gln	Ala	Glu	Ala	Val	Leu	Lys	Thr	Leu	Gln	Glu	Leu	Lys	Lys	Leu	Thr	325	330	335
Ile	Ser	Glu	Gln	Asn	Ile	Gln	Arg	Ala	Asn	Leu	Phe	Asn	Lys	Leu	Val	340	345	350
Thr	Glu	Leu	Arg	Gly	Leu	Ser	Asp	Glu	Ala	Val	Thr	Ser	Leu	Leu	Pro	355	360	365
Gln	Leu	Ile	Glu	Val	Ser	Ser	Pro	Ile	Thr	Leu	Gln	Ala	Leu	Val	Gln	370	375	380
Cys	Gly	Gln	Pro	Gln	Cys	Ser	Thr	His	Ile	Leu	Gln	Trp	Leu	Lys	Arg	385	390	395 400
Val	His	Ala	Asn	Pro	Leu	Leu	Ile	Asp	Val	Val	Thr	Tyr	Leu	Val	Ala	405	410	415
Leu	Ile	Pro	Glu	Pro	Ser	Ala	Gln	Gln	Leu	Arg	Glu	Ile	Phe	Asn	Met	420	425	430
Ala	Arg	Asp	Gln	Arg	Ser	Arg	Ala	Thr	Leu	Tyr	Ala	Leu	Ser	His	Ala	435	440	445
Val	Asn	Asn	Tyr	His	Lys	Thr	Asn	Pro	Thr	Gly	Thr	Gln	Glu	Leu	Leu	450	455	460
Asp	Ile	Ala	Asn	Tyr	Leu	Met	Glu	Gln	Ile	Gln	Asp	Asp	Cys	Thr	Gly	465	470	475 480
Asp	Glu	Asp	Tyr	Thr	Tyr	Leu	Ile	Leu	Arg	Val	Ile	Gly	Asn	Met	Gly	485	490	495
Gln	Thr	Met	Glu	Gln	Leu	Thr	Pro	Glu	Leu	Lys	Ser	Ser	Ile	Leu	Lys	500	505	510

Cys Val Gln Ser Thr Lys Pro Ser Leu Met Ile Gln Lys Ala Ala Ile
515 520 525

Gln Ala Leu Arg Lys Met Glu Pro Lys Asp Lys Asp Gln Glu Val Leu
530 535 540

Leu Gln Thr Phe Leu Asp Asp Ala Ser Pro Gly Asp Lys Arg Leu Ala
545 550 555 560

Ala Tyr Leu Met Leu Met Arg Ser Pro Ser Gln Ala Asp Ile Asn Lys
565 570 575

Ile Val Gln Ile Leu Pro Trp Glu Gln Asn Glu Gln Val Lys Asn Phe
580 585 590

Val Ala Ser His Ile Ala Asn Ile Leu Asn Ser Glu Glu Leu Asp Ile
595 600 605

Gln Asp Leu Lys Lys Leu Val Lys Glu Ala Leu Lys Glu Ser Gln Leu
610 615 620

Pro Thr Val Met Asp Phe Arg Lys Phe Ser Arg Asn Tyr Gln Leu Tyr
625 630 635 640

Lys Ser Val Ser Leu Pro Ser Leu Asp Pro Ala Ser Ala Lys Ile Glu
645 650 655

Gly Asn Leu Ile Phe Asp Pro Asn Asn Tyr Leu Pro Lys Glu Ser Met
660 665 670

Leu Lys Thr Thr Leu Thr Ala Phe Gly Phe Ala Ser Ala Asp Leu Ile
675 680 685

Glu Ile Gly Leu Glu Gly Lys Gly Phe Glu Pro Thr Leu Glu Ala Leu
690 695 700

Phe Gly Lys Gln Gly Phe Phe Pro Asp Ser Val Asn Lys Ala Leu Tyr
705 710 715 720

Trp Val Asn Gly Gln Val Pro Asp Gly Val Ser Lys Val Leu Val Asp
725 730 735

His Phe Gly Tyr Thr Lys Asp Asp Lys His Glu Gln Asp Met Val Asn

740

745

750

Gly Ile Met Leu Ser Val Glu Lys Leu Ile Lys Asp Leu Lys Ser Lys
755 760 765

Glu Val Pro Glu Ala Arg Ala Tyr Leu Arg Ile Leu Gly Glu Glu Leu
770 775 780

Gly Phe Ala Ser Leu His Asp Leu Gln Leu Leu Gly Lys Leu Leu Leu
785 790 795 800

Met Gly Ala Arg Thr Leu Gln Gly Ile Pro Gln Met Ile Gly Glu Val
805 810 815

Ile Arg Lys Gly Ser Lys Asn Asp Phe Phe Leu His Tyr Ile Phe Met
820 825 830

Glu Asn Ala Phe Glu Leu Pro Thr Gly Ala Gly Leu Gln Leu Gln Ile
835 840 845

Ser